

Santa Monica. The subsp. *marcescens* appears to be quite distinct from the subsp. *ovatifolia*, differing in its more slender caudex, in its narrower rosette leaves, and in the withering of its rosette leaves in summer.

The only other member of the subgenus *Dudleya* known to be completely leafless in summer is *D. parva* Rose & Davidson. That also is a small diploid plant very local in Ventura County: it occurs about 8 miles north of Little Sycamore Canyon. *Dudleya parva* is quicker to lose its leaves in summer and slower to produce new ones after the first rains. It differs from *D. cymosa marcescens* further in its narrower rosette leaves, its much shorter pedicels, and its less sharply acute petals, which are pale yellow rather than bright yellow. For description and photographs of *D. parva*, see Moran, 1948.

**DUDLEYA CYMOSA** (Lemaire) Britton & Rose subsp. **minor** (Rose) Moran, comb. nov. *Dudleya minor* Rose in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 19. 1903.

**DUDLEYA CYMOSA** (Lemaire) Britton & Rose subsp. **ovatifolia** (Britton) Moran, comb. nov. *Dudleya ovatifolia* Britton in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 20. 1903.

**DUDLEYA CYMOSA** (Lemaire) Britton & Rose subsp. **setchellii** (Jepson) Moran, comb. nov. *Cotyledon laxa* (Lindley) Brewer & Watson var. *setchellii* Jepson, Fl. West. Mid. Calif. 267. 1901.

**Dudleya hassci** (Rose) Moran, comb. nov. *Stylophyllum Hassei* Rose in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 35. 1903.

**DUDLEYA SAXOSA** (M. E. Jones) Britton & Rose subsp. **aloides** (Rose) Moran, comb. nov. *Dudleya aloides* Rose in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 15. 1903.

**DUDLEYA SAXOSA** (M. E. Jones) Britton & Rose subsp. **collomiae** (Rose) Moran, comb. nov. *Dudleya Collomae* Rose in Morton, Des. Pl. Life 6: 68. 1934.

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#### LITERATURE CITED

- LANJOUW, J., and F. A. STAPLEU. 1956. Index herbariorum. Part I, the herbaria of the world. Ed. 3. Utrecht.
- MORAN, REID. 1948. *Dudleya parva*, Rose & Davidson. Des. Pl. Life 20: 137-140.
- UHL, CHARLES, and REID MORAN. 1953. The cytotaxonomy of *Dudleya* and *Hasseanthus*. Am. Jour. Bot. 40: 492-502.

#### NOTES AND NEWS

CLEISTOGAMY IN *MIMULUS DOUGLASII* GRAY. In 1938, J. T. Howell described a small cleistogamous-flowered *Mimulus* as *M. cleistogamus* (Leaf. West. Bot. 2: 79), but he later (op. cit. 3: 127-128. 1942) recognized it as merely a "growth phase" of *M. Douglasii*. My own observations indicate the frequent presence of cleistogamous flowers in *M. Douglasii*. Their presence seems to be related to absence of sufficient water in the soil. Normally these plants grow in thin soil over sandstone, and, in years when late winter and early spring rains come often enough, they produce large open flowers. In some situations, for example, where the soil is extremely thin on

southern exposures, this seldom happens, and year after year, only cleistogamous flowers are produced.

A colony was once seen where apparently the water supply was cut down at a critical moment, following which some of the plants produced small open flowers some of which were abnormal for *M. Douglasii* (V. F. Hesse 918, Jepson Herbarium, University of California, Berkeley). One of these small flowers was observed to resemble in shape the flowers of *M. Congdonii* Robinson. Although *M. Congdonii* grows in the same area, it apparently requires a somewhat deeper soil, and has not been observed to produce cleistogamic flowers. These observations were made in the Boulder Creek area of Santa Cruz County. —V. F. HESSE, Boulder Creek, California.

NOTES ON CALIFORNIA GRASSES. Three summer weedy annual grasses are extending their range northward in California. They occur on wet soils, periodically flooded by irrigation during the summer months. Specimens cited are at the Agronomy Herbarium, University of California, Davis.

1. *ERIOCHLOA CONTRACTA* Hitchc. (prairie cupgrass). Generally of sparse occurrence in the state. Introduced from the Great Plains originally into southern California. William H. Allison collected the grass in Merced County in 1939 and the author discovered it in northern Solano and southern Yolo counties (Crampton 3147, 3148) in the summer of 1955. Apparently well-established here and competing successfully with *Echinochloa crus-galli* and *Echinochloa colonum*.

2. *CHLORIS VIRGATA* Swartz (feather fingergrass). Occurs mostly in southern California and the San Joaquin Valley. Collection of the grass from near Davis, Yolo County (Crampton 3140), and Pentz, Butte County (Morse, Farm Advisor, Butte County), confirms its northward extension. The plant has been reported seen near Auburn, Placer County, but no voucher is available.

3. *LEPTOCHLOA FASCICULARIS* (Lam.) Gray (sprangletop). This is now a very common weedy grass preferring wet habitats ranging from loose, sandy soils of stream and river shores to heavy adobe or alkaline soils of valley plains and river bottomlands. In its early development, the grass probably behaves as an aquatic, since maturing plants are often partially immersed in water, particularly in and around rice fields. Distribution of the grass in California may be designated as follows:

Infrequent: in the Coast Ranges from San Francisco Bay south to Lower California; alkaline soils east of the Sierran Crest from Lassen County south to Inyo County. Abundant: Great Valley, Butte County south to Kern County.

*AGROSTIS TANDILENSIS* (O. Kuntze) Parodi (*A. kennedyana* Beetle). This rare annual grass, previously known in California only from San Diego County, was discovered in Solano County (Crampton 3275, 3289, 3296, 3300) during April, 1956. The general area of occurrence of this species begins about 7.5 to 8 miles south of Dixon, on the road to Rio Vista, centers around Dozier Station, and extends southward for several miles. The area habitat is one of a valley plain with low and small to large hummocks interspersed with hog wallows or vernal pools that are largely alkaline and support tufts of the rhizomatous *Distichlis* along with *Eryngium*, *Deschampsia danthonioides*, *Baeria*, and *Pogogyne*. The hummocks support largely the Mediterranean annual grasses *Bromus mollis*, *Bromus rigidus*, *Festuca bromoides* and close allies, *Avena barbata*, *Hordeum hystris*, and *Lolium multiflorum*. In some localized areas, the vestiges of the old Pacific Bunchgrass region is seen in *Stipa pulchra* and the less common *Melica californica*. Some native *Trifolium*s are in abundance, particularly the striking *Trifolium barbigerum* var. *lilacinum* (Greene) Jepson.

*Agrostis tandilensis* is relatively inconspicuous in the beds and along the margins of these vernal pools, and often is masked by *Eryngium* and *Deschampsia danthonioides*. Sometimes, though, this grass is noticeable on the somewhat barren portions of the pools. The species generally is not abundant, and is certainly not a conspicuous element of its habitat. One or two pools were found supporting many plants of the

species, while most pools had none, or, if a few, the plants went unnoticed among other vegetation. In one pool the grass was associated with a related annual, *Agrostis microphylla* var. *intermedia* Beetle, remarkably distinctive from the pale green and shining panicles of *A. tandilensis* by its reddish panicles, but also easily overlooked among the ubiquitous *Deschampsia danthonioides*.—BEECHER CRAMPTON, Agronomy Herbarium, University of California, Davis.

CALIFORNIA BOTANICAL SOCIETY  
PUBLISHERS OF MADROÑO

REPORT OF THE TREASURER FOR 1956

RECEIPTS:

Balance on hand in commercial account, January 15, 1956.....	\$ 464.15
From memberships and subscriptions.....	2,369.35
From sales of back numbers of <i>Madroño</i> .....	281.00
Receipts from annual dinner.....	170.50
Received as authors' share of publication costs.....	76.60
Contributions to endowment fund.....	2.50
Contributions to memorial fund.....	185.00
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Total receipts .....	\$3,549.10

DISBURSEMENTS:

Credited to endowment fund from sales of back numbers of <i>Madroño</i> .....	\$ 281.00
Credited to endowment fund from contributions.....	2.50
Credited to memorial fund.....	185.00
Corresponding Secretary's expenses .....	62.15
Cost of annual dinner.....	163.08
Cancellation refunds .....	6.50
Cost of printing, binding, and mailing <i>Madroño</i> , Volume 13, Numbers 5, 6, 7, and 8.....	2,008.57
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Total disbursements .....	\$2,708.80

BALANCE ON HAND IN COMMERCIAL ACCOUNT, American Trust Co.,  
Palo Alto, January 15, 1957..... \$ 840.30

ENDOWMENT AND MEMORIAL FUND:

Palo Alto Mutual Savings and Loan Association, balance on hand January 15, 1957.....	\$3,998.72
Accrued interest .....	119.25
From sales of back numbers of <i>Madroño</i> .....	281.00
Contributions to memorial fund.....	185.00
Contributions to endowment fund.....	2.50
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American Trust Company, savings account, balance January 15, 1957.....	\$ 372.58
Accrued interest .....	7.48
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	380.06
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Total endowment .....	\$4,966.53

Accounts audited and found correct:

RICHARD W. HOLM, Auditor  
June 6, 1957

MALCOLM A. NOBS,  
Treasurer for 1956